Honors volcano chapter questions

1. Magma and lava both refer to molten rock from which igneous rocks form. However, magma refers to molten rock below Earth’s surface and lava refers to molten rock at Earths’ surface.
2. The nature of a volcanic eruption is determined by the 1. Composition of the magma 2. The temperature of the magma 3. The quantity of dissolved gases. Composition and temperature influence the viscosity. The viscosity helps determine whether the eruption will be violent or quiet. The gases provide the force to propel the liquid rock. The quantity of gases present and the ease with which they can escape determines the nature of the eruption
3. When magma migrates to a near-surface environment, the gases that were dissolved at great depth begin to rise and expand. The viscosity of the lava determines the ease with which these gases can escape.
4. Pahoehoe forms from fluid basaltic lava and has a smooth or ropy appearance. Aa lava results when more viscous magma cools and has a sharp and jagged surface.
5. Water vapor (70%) CO2 (15%) N (5%) Sulfur compound (5%)
6. Water vapor
7. Fragments of volcanic rock and partly solidified lava blown from a volcano are termed pyroclasts. Dust, ash, tuff, cinders, blocks and bombs.
8. A crater is a steep walled depression at the summit of a volcano. Calderas are unusually large craters.
9. Shield- largest, gently sloping, quiet eruptions, fluid basaltic lava, little pyroclastic material  
   Cinder- almost exclusively of pyroclastics, steep sided, smallest of the volcanoes  
   Composite (strato)- alternating layers of lava (andesitic and rhyolitic) and pyroclastic debris, steeper than shield, violent periods of volcanic activity.
10. Shield- Islands of Hawaii  
    Cinder- Paricutin  
    Composite- Mt. Fuji, Mt. St. Helens
11. Hawaii- shield volcano built up over 1 million years with many eruptive cycles  
    Paricutin- cinder cone created over a few years

14. Shiprock is a volcanic neck. Over years the volcano eroded away and left behind the conduit that brought molten material to the surface.

16. Dikes and sill are tabular masses. Sills are concordant & dikes are discordant. Massive intrusions- laccoliths (concordant) and batholiths (discordant).  
18. Batholith- massive and discordant  
20. Basalt- a reduction in pressure  
21. Region of numerous volcanoes that borders the Pacific Basin  
22. Generally violent- Mount St. Helens  
23. Intraplate volcanism